

LEAKAGE CURRENT RELAY

Patent number: JP2002044856
Publication date: 2002-02-08
Inventor: OKAMOTO SHINICHI
Applicant: MITSUBISHI ELECTRIC CORP
Classification:
 - international: H02H3/347; G01R31/02; H02H3/00; H02H3/05
 - european:
Application number: JP20000223962 20000725
Priority number(s): JP20000223962 20000725

Abstract of JP2002044856

PROBLEM TO BE SOLVED: To obtain a leakage current relay which has a detecting circuit to detect breaking of wire between the leakage current relay and a residual current transformer. **SOLUTION:** The leakage current relay is composed of a burden resistor 2, a detecting circuit of a leakage current 4, a reset circuit 16, a test switch 5, a diode stack 9, a voltage-regulator diode 8, a connecting wire 11, a detecting circuit of breaking of wire 17, a plurality of transistor circuits 14, 15, a waveform generator 13, and an output circuit 12. The burden resistor 2 converts a current induced in the secondary winding 1a of a residual current transformer 1 into a voltage. The detecting circuit 4 detects a leakage current using the voltage drop in the burden resistor 2. The test switch 5 performs a test of the leakage current. The diode stack 9 rectifies an output from a power supply. The voltage-regulator diode 8 generates a regular DC voltage from an output from the diode stack 9. The connecting wire 11 connects the residual current transformer 1 and a main body of the leakage current relay. The detecting circuit 17 detects breaking of the connecting wire 11 or the secondary winding a of the residual current transformer 1. The transistor circuits 14, 15 switch between detection of the leakage current and detection of breaking of wire. The waveform generator 13 synchronizes and change state of the transistor circuits 14, 15. The output circuit 12 outputs occurrence of the leakage current or the breaking of wire according to outputs from the detecting circuits 4, 14.

